Compromised Public Health
CHELSEA AND EAST BOSTON

Chelsea:
- 1.8 square miles
- 45,000+ residents
- 73% ethnic minorities
- 24% live below poverty line

East Boston:
- 5 square miles
- 55,000+ residents
- 53% Latino
- 17% live below poverty line
Disproportionate Environmental and Public Health Burdens
New England Produce Center
2nd Largest Privately Owned in Produce Distribution Center in US
80% impervious surfaces

5% open / green space
3% dedicated to parks

2% Tree Canopy
Healey Report Highlights COVID-19 Impact on Environmental Justice Communities
In Chelsea, the deadly consequences of air pollution

Coronavirus isn’t just a health crisis in Chelsea. It’s also an environmental one.

By Yvonne Abraham Globe Columnist, Updated April 29, 2020, 6:43 p.m.

Massachusetts communities with dirty air are coronavirus hotspots

By Zoe Greenberg Globe Staff, Updated April 29, 2020, 7:33 p.m.

In a Crowded City, Leaders Struggle to Separate the Sick From the Well

Chelsea, Mass., has an infection rate higher than any other community in the state. With families in cramped housing, it is difficult to contain the spread.


COVID-19’s link to environmental racism

Even now it’s happening along Chelsea Creek

A Look Inside Chelsea, The State's Top Coronavirus Hotspot
COVID-19 in Chelsea: A Glance Into One of the Hardest Hit Cities
And the Role of Intersecting Social Determinants of Health

Chelsea, Massachusetts was one of the first cities in the nation to experience the catastrophic impacts of the COVID-19 pandemic. At its peak, Chelsea had the highest positivity rate in the state for months on end. As the early epicenter in Massachusetts, Chelsea had an infection rate equal to or surpassing most other regions in the nation. Factors such as an essential workforce, racial inequities, significant overcrowded housing, pre-existing health conditions, high rates of poverty, industrial pollution, and various other inequalities contributed to higher risk of infection, serious illness, and death. The city and its residents remain vulnerable to these inequities related to the social determinants of health.
CLEAN AIR FOR THE PEOPLE

CHILDREN DESERVE CLEAN AIR
63,000 daily vehicular trips across the Tobin Bridge

37,000 annual trucks to/from NEPC

20% Chelsea exceeds EPA’s diesel concentration level by 20%

2x Chelsea residents face nearly double the risk of air pollutants and approximately

1.5x the rate of cancer compared to all of MA
What could have been...
What is...
Non-Road Worthy, Dirty Diesel Engines Operating 24/7
Collaborative and Innovative Solutions

- Repowered/Retrofitted 132 Dirty Diesel Engines
- Eliminated 2,000 tons of annual air pollutants
- Improved public health outcomes
- Reduced health care costs
1 Stationary Air Quality Monitor
9 Mobile Monitors
https://fire.airnow.gov/
THE LOWDOWN ON CHELSEA’S AIR QUALITY

Chelsea ranks third in Massachusetts as the most intensively overburdened community for potential hazardous exposures due to the high density of environmentally hazardous industrial facilities and sites.

6 EXAMPLES OF AIR POLLUTANTS

- Cause harm to human health and the environment. Photochemical oxidants (including ozone), particulate matter, carbon monoxide, sulfur dioxide, nitrogen dioxide, and lead.

CHELSEA TRANSPORTATION HUB

Located under major flight paths for Boston Logan International Airport, it is home to the Tobin Bridge, connecting the North Shore to Boston through major highways, carrying 83,000 cars daily, and the New England Produce Center which sees approximately 37,000 trucks annually.

DID YOU KNOW?

In 2015, 23 thousand tons of toxic waste was released into the air in Chelsea from two of seven bulk petroleum storage facilities.

ASTHMA HOSPITAL VISITS

In 2016, 36 per 10,000 people in Chelsea had an emergency department visit due to an asthma attack compared to the state rate of 61 per 10,000 people.

IT’S TIME TO TAKE ACTION!

Contact Layne Benton at GreenRoots to learn more about what GreenRoots is doing about air quality.

INFORMATION SOURCE

THE LEAGUE OF AIR POLLUTANTS

Versus

CHELSEA'S DEFENDERS

TAKING OVER CHELSEA

Chelsea is 3rd for asthma hospitalizations in MA, thanks to us.

About 77% of Chelsea has asthma. YOU ARE WELCOME!!!! MURMAHAMA

We are taking over Chelsea thanks to all of the airplanes, cars, cement trucks, and busy producing us outside daily.

In your homes we need to think asbestos, lead, mold, and burning flames.

Yes. gas stoves, candles, incense, and smoking produce our poison on everyone in Chelsea.

WHO WILL STOP US?

As a team we are working to get you, more involved about air quality.

Together we can clean the air in Chelsea!!!!

CHELSEA DESERVES CLEAN AIR!!!

CHELSEA'S DEFENDERS

CHELSEA'S DEFENDERS

THE LEAGUE OF AIR POLLUTANTS

I am the villain Photochemical Oxidant: I love to create ozone layers to make it hard to breathe.

They call me Lead: If you have too much of me in your body, I can cause you a lot of pain.

We are going to fight for a safe and healthy Chelsea!

Our voices will be heard as we make our stand against The League of Air Pollutants with Captain Air Filter.

As a team we are working to get you, more involved about air quality.

Together we can clean the air in Chelsea!!!!

CHELSEA DESERVES CLEAN AIR!!!
Where are the city hot spots?

Land surface temperature map of Chelsea and East Boston, Massachusetts showing local heat islands. Source: Landsat 8, 30 meter resolution, Summer Data dashboard https://www.c-heatproject.org/datadashboard

Future hot spots?

Heat island locations provided by City of Boston and Weston & Samson

Data dashboard https://www.c-heatproject.org/datadashboard
Cool Block Initiative

- White roof
- Reflective sidewalk
- Tree planting & Tree Keepers
- Empty lot reimagining

Video [https://vimeo.com/799997127/de5a35e471](https://vimeo.com/799997127/de5a35e471)